2022 HEP and CAMP Evaluation Webinar Transcript
Office of Migrant Education, U.S. Department of Education

2022 HEP and CAMP Evaluation Webinar Transcript

00:00:00.000 --> 00:00:03.520
Toro, Sandra
Right well, we're waiting for the presentation to come up.

00:00:05.390 --> 00:00:12.280
Toro, Sandra
I'll go ahead and say that I will deliver the first part of this presentation and then turn it over to Kavita to continue.

00:00:13.750 --> 00:00:25.370
Toro, Sandra
And for the purpose of this presentation, as I mentioned Kavita is serving as a subject matter expert via the HEP and CAMP technical assistance contract with Safal Partners.

00:00:26.550 --> 00:00:27.460
Toro, Sandra
Next slide.

00:00:41.570 --> 00:00:46.040
Toro, Sandra
Jessica, I think we can still see the presenters view with the notes.

00:00:46.880 --> 00:00:47.650
Toro, Sandra
That's OK.

00:00:49.550 --> 00:00:52.270
Stein, Jessica
Let me see if I can remove that, my apologies.

00:01:01.620 --> 00:01:27.550
Toro, Sandra
Alright well, while we're waiting, I'll go ahead and tell you a little bit about myself. I joined the Office of Migrant Education in November of last year and I came to the Department of Education in early 2020. Prior to that, I was a senior program officer at the Institute of Museum and Library Services and oversaw 3 grant programs for Native American and Native Hawaiian populations as well as served as the research expert for the Office of Library Services.

00:01:28.140 --> 00:01:31.010
Toro, Sandra
My background is in educational psychology, and I worked as a faculty member in an Ed Psych Department before working in grants administration and currently I'm the data and evaluation team lead for HEP, CAMP, and MEP.
Ok, I'll go ahead and say in terms of logistics, please do mute your electronic devices like your phone and your computer during the webinar and if you're having a challenge connecting, please try dialing in separately on the telephone now we do have a separate line. Also, please use the chat box to pose any questions. We'll do our best to respond during the question-and-answer portions of the webinar.

or if needed after the webinar, but please note that the presentation portion of the webinar will be recorded and after the webinar, we will have a breakout session discussion at the end of the presentation. Separate links will be provided to join the breakout groups.

Hi Sandy, I just need to reload the presentation because I wasn't able to change the slides for some reason so my apologies for that.

It should hopefully work now?

Alright, do you want to start the recording over again?

Yes, I can do that.

And we can start with the presentation objectives.

Ok. How does it look on your end?
Stein, Jessica
Ok great. Alright, we'll get started.

Toro, Sandra
Thank you Jessica. So today, we'll discuss the purpose and importance of evaluation in your HEP and CAMP projects, we'll review logic models and suggestions on how to use them for evaluation, we'll review the department's evidence categories, we'll review details of promising evidence and will discuss how to plan an evaluation as part of demonstrating promising evidence as well as share resources for promising evidence.

Toro, Sandra
Next slide please.

So there are statutory and regulatory requirements for your projects. For example. Section 418AD of the HEP and CAMP statute states each project application shall include a management plan which contains assurances that the grant recipient will coordinate the project to the extent feasible with other local, state, and federal programs to maximize the resources available for migrant students.

Toro, Sandra
And that staff shall have a demonstrated knowledge and be sensitive to the unique characteristics and needs of the migrant and seasonal farm worker population.

Toro, Sandra
And provisions for staff in service training, trading and technical assistance, staff travel, student travel, interagency coordination, and an evaluation plan.

Toro, Sandra
34 of the Code of Federal Regulations 75 applies to all education programs and 206 applies to HEP and CAMP specifically.

Toro, Sandra
In addition, if you refer to the notice inviting applications or the NIA, you'll see that in terms of the quality of the project evaluation, the Secretary of the Department of Education considers the quality of the evaluation to be conducted of the proposed project. We'll talk more about what is meant by the quality of the evaluation.
HEP and CAMP evaluations help build evidence of the extent to which HEP and CAMP projects impact student performance.

Your program evaluation work helps us inform understanding of the Government Performance and Results Act, or GPRA 1, GPRA 2, and efficiency targets.

Also, strengths and weaknesses and program implementation and program effectiveness.

As the slides to follow explain, determining overall effectiveness requires specific types of evaluation methods and design.

As per the NIA, there are set requirements for evaluation for the HEP and CAMP program, including methods of evaluation that are thorough, feasible, and appropriate to the goals, objectives, and outcomes of the proposed projects.

That will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes and that will produce promising evidence as defined in 34 CFR 77.1(c)) about the project’s effectiveness.

Ideally though, we do want to move beyond only statutory and regulatory requirements. Through program development and implementation, we have the opportunity to find what works for the unique populations we serve.

As you know, there’s limited published research on effective strategies that produce positive outcomes for migratory learners. As project directors, you are all well positioned to build evidence for migratory students everywhere. So, we want to make sure that the methods of evaluation are thorough, feasible, and appropriate to the proposed project’s goals, objectives, and outcomes and that they will provide that performance feedback and permit periodic assessment of progress.
Towards achieving intended outcomes and if well implemented produce the promising evidence about the program's effectiveness.

This slide shows definitions of evidence from EDGAR, the department's administrative regulations. For HEP and CAMP, the Secretary considers the quality of the evaluation to be conducted of the proposed project.

In determining the quality of the evaluation, the Secretary considers the following factors:

promising evidence, which Dr. Mittapalli will discuss in more depth later; means, that there is evidence of the effectiveness of a key project;

Component, improving a relevant outcome based on a relevant finding from one of the following:

a practice guide prepared by the What Works Clearinghouse reporting a strong evidence base or moderate evidence base for the corresponding practice guide recommendation;

an intervention report, prepared by the What Works Clearinghouse reporting a positive effect or potentially positive effect on their relevant outcome with no reporting of a negative effect or potentially negative effect

on a relevant outcome; or a single study assessed by the department as appropriate that is an experimental study, a quasi-experimental design study, or a well-designed and well implemented correlational study with statistical controls for selection bias. For example, a study using regression methods to account for differences between a treatment group and a comparison group
and includes at least one statistically significant and positive, for example, favorable effect on a relevant outcome.

The Department of Education will require grantees to conduct or commission rigorous evaluations of their activities and report their findings to the department and the public. This includes the development of exit evidence at the conclusion of the grant period.

Exit evidence describes the theoretical and operational relationships among the key project components and relevant outcomes. This helps with making connections between the activities or strategies that you’re using and the outcomes you plan to measure in your evaluation.

A good suggested starting place is the development of a logic model. A logic model, which we’ll discuss further in a few slides, helps communicate the program to people outside the program in a concise and compelling way.

Another benefit of utilizing a logic model is that it sets the larger stage for understanding how the different levels are being used in this competition.

The department expects to see programs evaluate their projects such that they can build evidence around project components at the promising evidence level or exit.
Logic model, also referred to as theory of action, means a well specified, conceptual framework that identifies key components of a proposed process, product, strategy, or practice. For example, the active ingredients that are hypothesized to be critical to achieving relevant outcomes and describes the relationships among the key components and outcomes theoretically and operationally.

In EDGAR, a logic model means a well specified, conceptual framework that identifies key components of the proposed process, product, strategy, or practice and describes the relationships among the key components and outcomes.

These are the basic components of a logic model.

To review, the components are inputs, or resources. These are the materials to create the program, implement its activities, and attain desired outputs and outcomes. Examples include material or non-material resources, facilities, funding, curricula, and community support in time.

Activities: these are the processes, actions, and events through which the program resources attain the intended outcomes.

In other words, there are the steps for programming implementation. Examples include conducting training and analyzing student data.

Outputs; these are process oriented results or products of the program typically expressed in numbers. For example, number of students tested, number of teachers or parents trained; they don't tell you if a change occurred from the program.
Impacts on outcomes: these include long term outcomes and represent changes in program participant’s knowledge, beliefs, or behavior such as higher achievement rates, higher graduation rates, and higher college acceptance rates.

Assumptions:

The assumptions that underlie a program’s theory are conditions that are necessary to program success and that you believe are true. Your program needs these conditions in order to succeed, but you believe these conditions already exist. They're not something that you need to bring about with your program activities.

External factors: programs don't occur in a vacuum.

Many factors over which you have little or no control may affect your program’s outcomes. These external factors such as political or economic situations, social influences, and even weather can help or hinder a program’s success. Changes in any of these contextual factors may require program adjustments.

Next slide please.

At this time, we can take a brief pause to see if there are any questions about anything that I've said before we proceed.

If you have any questions, please put them in the chat.

Alright I'm not seeing any questions or any typing come so I will go ahead and introduce Dr. Kavita Mittapalli. She is the founder and CEO of a K-20 research and evaluation firm, MN Associates, which is based in Fairfax, Virginia with clients across the nation. AT MNA, Kavita leads a team of 5 evaluators.
Since its foundation in 2004, MNA has evaluated over 150 grants funded by multiple federal, state, and local agencies as well as private foundations. Kavita has a bachelor’s degree in Agricultural Sciences with a minor in Extension Education, a master’s in Applied Sociology, and a PhD in Research Design and Methodology in Education. We’re very glad to have her present the next section of today’s webinar on promising evidence.

So onto you, Kavita.

Thank you so much Sandy thanks, so glad to see your view on camera and the rest of you off camera. Well, thanks, so much for the very warm welcome. Sandy and the wonderful introduction that you have given on the grant, the evaluation requirements, important definitions, and of course, the logic model. Many thanks to the HEP and CAMP team members, Millie, and Sandy of course, and also several partners for inviting me today to present.

Next slide please.

So for this section of the webinar, there are mainly 5 topics that I will cover to address the regulatory requirement of conducting new promising evidence for your HEP and CAMP programs. So first of all, I'll talk a little bit about the overarching research process that leads us to plan and develop our research design, research questions, methods, and analysis. Next, I will introduce the task of producing new promising evidence, specifically I'll talk about what really constitutes promising evidence and where does it really come from. Following that, I'll talk about some critical questions that drive the new evidence production.

Following that, I'll talk about some appropriate experimental and also nonexperimental designs for producing new promising evidence with some field examples from HEP and CAMP programs thanks to the project directors. I think I just saw Dr. Robert Garcia who very kindly shared his work with us.
And finally, I'll touch upon some sample's issues with the problems with sampling reliability and also validity as they closely relate to the HEP and CAMP projects.

So, summing up during this time, you will have some opportunities to look at your own projects, your logic model, your research design if you have one, with respect to the topics and items that I will be talking about.

Next slide please.

So let's look at this diagram for a minute or so. So, this diagram really provides a very quick overview of the research process that I mentioned about that leads us to not only plan, design, and also implement the design, the research questions, the data collection, methods, and also conduct analysis.

So this figure will be used as a framework when we generally talk about evidence, claim, outcomes, and for designing specifically your HEP and CAMP projects. So, one thing that I would also like to mention here before we get into the details of a research design and the implementation is that as an evaluator sometimes the project team members would also like to know the difference between research and practice and how they tend to inform each other.

Also, there is sometimes a conflation between research and practice.

So there is a knowledge and application gap between the outcomes that come from the research, and they use in turn in practice.

I would also like to take a moment and note here at the beginning that context really significantly matters and effects an intervention of your program and it also affects the impact and effectiveness.
It will seldom be possible to replicate results by moving a few components here and there and then expecting the same results in the new setting. So, if the program is to work within a context, it will have to be fitted into that context well, work within its limitations so to speak.

So, as someone who is trained in mixed methods and follows the philosophy of critical realism, I love to say that measure, what works for whom, and under what circumstances.

So you've been hearing about building evidence with HEP and CAMP projects. So, what exactly is evidence? So, for our purposes, evidence is a particular form of information. It is information for the purpose of affirming or disconfirming a claim and has the qualities of validity and reliability, which I'll talk about in some more details.

So, when you hear the term evidence, it means that your project is expected to make use of evidence-based practices as defined by the What Works Clearinghouse or what we call as WWC.

Moreover, you had the opportunity to identify evidence of effectiveness regarding your innovation or your intervention to help contribute to the evidence base of your program.

So, using these WWC standards, the conditions of your findings really requires that you determine whether there is promising evidence from at least one component of your project that leads to an expected outcome. So, when I talk about output and outcome referred to the slide where Sandy talked about the expected outcomes and outputs from the logic model.

So, keep in mind that this is an important contribution for your project that can be made in building
evidence of What Works and HEP and CAMP since there is limited evidence regarding effective strategies pertaining to the populations so by HEP and CAMP projects.

So, this requirement also needs considerable unpacking, both in terms of what promising evidence really means and how evidence is really obtained.

Next slide please.

So, let's talk a bit about unpacking the promising evidence as it relates to HEP and CAMP projects.

So, we will begin with what it is that you claim your project is designed to do.

You want to know if something is effective, if something is working indeed, on your population. Now, you will need to do the research to find out if that evidence is there to support your claim.

We all understand what it means when somebody says that this is really promising.

And if we say something is promising, we mean that it appears that things are going to work out the way that we want them to.

To say that your innovation is promising merely means that you have reason to expect that you will get the outcome that you intended, again going back to your logic model.

However, if the public is going to invest a large amount of money in your project, and if you want others to have confidence in our claims, then we need to have a basis of what is really called as a promising innovation.
kmittapalli
So, all this means is that we definitely need evidence, and this evidence needs to be of a certain kind. Sandra has already talked about the evidence definitions from EDGAR, so have a good quick reference to those. And when evidence really meets the standards set out by the What Works Clearinghouse, then we can say that evidence is promising, hence the phrase promising evidence.

kmittapalli
So, getting to the promising evidence really begins from your logic model or the theory of action, which is also our next topic.

kmittapalli
Next slide please.

kmittapalli
So, again building on information that Sandra quickly introduced in terms of the logic model on slide 10-11, here’s a model that shows the role of a logic model, with respect to conducting an evaluation and especially as it relates to setting up the outputs, the outcomes, and the indicators.

kmittapalli
So, let’s talk about an example of an activity. An example of an activity could be providing counseling, health services, even recruitment, professional development training, technical assistance, workshops, and the content areas, so there’s some really good examples of activities.

kmittapalli
One thing of note is that for some grant programs, an output might also be a workshop or even a tutoring program if the activity is actively engaging in a very collaborative fashion.

kmittapalli
Or even convening a group of experts to explore a topic,
But for HEP and CAMP, that is not the case.

I remember the claim that our project offers innovation or intervention X. So if participants take part in X, then participants will accomplish Y, which is our goal. Well, innovation X and outcome Y will need to be articulated well in your logic model.

What do you exactly mean by X so that we produce, or we hope to see, Y happen?

So, not the language of the regulation, the component and the outcome really need to be evident in the logic model and they should also show how they are linked.

So, looking at the logic model, the component could be anything under activities.

So, I'm going to pause for maybe half a minute here for you to quickly look at your claim within your logic model and if there is something that you would like to share, maybe you know, right in the chat box, that we are going to take a little later.

Thank you so much Kavita and if you wouldn't mind putting your camera on as well.

So, do we have any questions, any thoughts on this?

No pressure.

We have 10 more seconds and then I'll move on to the next slide and we can come back to the logic...
model if you are able to find something and share, I would be more than happy to talk through that. Next slide please Jessica thank you.

00:28:28.430 --> 00:28:37.440
kmittapalli
So, this slide shows 4 critical questions that you should ask about your activity, intervention, and or treatment.

00:28:38.410 --> 00:28:40.240
kmittapalli
So, we’re talking about your claim.

00:28:40.920 --> 00:28:44.500
kmittapalli
You have made a claim about an intervention or treatment for your program.

00:28:45.270 --> 00:28:56.650
kmittapalli
They want to know how effective and Interventional treatment is at bringing about an intended outcome for the population you’re in HEP and CAMP programs

00:28:57.820 --> 00:29:07.130
kmittapalli
We also want to know if the claim is just so many words or if there really is promising evidence regarding your claim.

00:29:09.040 --> 00:29:17.310
kmittapalli
And that requires an evaluation of effectiveness. In other words, an intervention or treatment study of effectiveness.

00:29:19.130 --> 00:29:36.780
kmittapalli
Hence the project team, including both the project director and the evaluator, have to ask which key components, for instance, activity, intervention, or treatment, for your project, will be an intervention foreign effectiveness study.

00:29:38.050 --> 00:29:40.410
kmittapalli
What is the outcome to be measured?

00:29:41.630 --> 00:29:46.920
kmittapalli
What is the outcome intended by this component intervention?

00:29:47.680 --> 00:29:53.910
kmittapalli
What level of outcome do I expect to achieve that this component intervention?
So, these are the 4 critical questions that should be of prime discussion between the project director and the evaluator.

Next slide.

So, let's look at the 4 questions that I mentioned just now in light of an example of a claim.

So for instance, this is my claim:

participating in grant supported academic tutoring will enable the students to improve their scores on HSE practice tests for HEP or successfully complete all the first semester courses in CAMP.

My expected target is 95%.

Note that this example of claims supports achievement of a short-term outcome in the logic model template that was shared previously and also talked about by Sandra in some details.

The achievement of short-term outcomes leads to achievement of intermediate outcomes, especially meeting their one and or the 2 targets which then will support the achievement of long-term outcomes.
So, when we talk about outcomes in a logic model, we are thinking about those short-term outcomes, which might be happening suppose in your 5-year program in year 3 and year 4 and the long term would be 5 and even beyond if you’re able to measure those, so keep those in mind.

So, going a little further into some more details, again this is my claim on the left side of the slide.

HEP or CAMP students who participate in grant supported academic tutoring will improve their scores on HSE practice tests for HEP or successfully complete all the first semester courses in CAMP, expected target being 95%, which we already talked about.

However, it turns out as the claim is written, I can’t actually answer all the 4 critical questions that I mentioned. Information is still missing, and it has to do with what is known as operationalizing the definition.

So, we have to operationalize our component or activity to be tested as well as the outcomes to be measured so that we know that our terms mean and so that they are also measurable, both the short and the long terms.

So, here are some answers to the 4 critical questions that I talked about.
So, rich component of our program will be an intervention foreign effectiveness study. So, the answer here is participating in grant supported academic tutoring. However, I mentioned that we also need to operationalize the participation aspect. What does that mean?

kmittapalli
So, we write participating in at least 10 hours of grant supported academic tutoring, which means that we are adding that component of specificity: how much, how often?

kmittapalli
Now, the second question: what is the expected outcome intended by this component intervention?

kmittapalli
That would be improving the scores on HSE practice tests.

kmittapalli
Successfully, completing all the first semester courses for camp.

kmittapalli
Likely you’re also seeing the problem, but what do these terms mean?

kmittapalli
So, we ask how are the expected or projected outcomes to be measured?

kmittapalli
By percentage; we are interested to know percent of students who are improving their scores on HSE practice tests.

kmittapalli
Percent of students successfully completing all the first courses so you’re just looking at the final approach. We start out very broad and then we are very slowly funneling it down to extreme specificity.

kmittapalli
But they’re not out of the woods, yet. So, how does the percentage really matter? Does the number of students really matter? Does it really mean to successfully complete a course?

kmittapalli
So, our example indicates an expected target of 95%, so let’s lose that.
And restate the answers to question 2.

What is the outcome intended by this component intervention?

So, restating this and adding the percentage 95% of all the participants will show improvement on the HSE practice test for HEP.

Or 95% of the participants will complete all first semester courses for CAMP with a C grade or better.

Therefore, the revised claim here would be 95% of HEP and CAMP students who participate in at least 10 hours of grant-supported academic tutoring will show improvement on HSE practice tests for HEP or complete all first semester courses for CAMP with a C grade or better.

So overall, we have improved the specificity and measurability of our claim.

At this point, I want to make a slight change to the comment on 2 critical points that have to do with measurement tools, you know devices, which I want to talk about in a bit, so I want to pause for a hot second here.

so that you can take a look at the slide as to how we narrowed the definition, how we brought it from a broad claim to an extremely narrow yet measurable claim.
kmittapalli for your HEP and CAMP program.

kmittapalli OK next slide please Jessica.

kmittapalli So, I talked about the measurement devices, tools, and instruments so evaluators often use a wide variety of tools and instruments to conduct evaluation.

kmittapalli So, the points I want to make here are about the quality of measuring tools, devices, and for collecting baseline data.

kmittapalli So, regarding quality, collecting data requires that you have some measurement tools.

kmittapalli Such tools can be, you know, many different things such as surveys, exit surveys, pre post surveys, our review of tracking logs, tests.

kmittapalli However, all measurement devices, they need to have demonstrated some validity and reliability. So, these are 2 terms that will be often used by evaluators when they say that we conducted reliability tests or we took these X, Y, and Z steps to make sure that our study was reliable.

kmittapalli So, in terms of validity. It's a device or tool that measures what it what it intends to measure.

kmittapalli And in terms of reliability, a device or a tool that is in stable responses.

kmittapalli For example, if data are collected one day from one person, a week later is assuming nothing has
happened between; that person will respond the same way then the same tool or instrument is used, so there is that level of consistency.

Some changes are natural, and they're also dependent on the context the data are being collected. So, as researchers and evaluators, we also believe that a researcher collecting data becomes the instrument and the conditions they are working.

Affective mentioned is our devices are both valid and reliable and these factors should not be overlooked both by the project director and the evaluator.

Next slide.

So, in the previous slide before I started talking about reliability and validity, I mentioned about baseline data. So, every project should be paid or should have baseline data. We always need baseline data, especially in the education context. The baseline would be prior knowledge, it could be training experience,

prior test scores, performance data, and several other touch points that occur before the intervention, before the activities or innovation actually begins.

You have measuring tools and devices for measuring the outcomes, but you also need to know what the starting point is.

Thus, every project should be prepared to collect some baseline data and baseline data are the data about your participants at the start of your project.

For example, let's say you have an intervention on study skills, and you have a study skills measure.

Denote the effectiveness of the study skills intervention, which we can also say is the outcome of your project, you need to know the participant's study skills that is prior to the intervention.
kmittapalli
That is what the baseline data is.

kmittapalli
So, it doesn't measure of whether or where the participants are before receiving your projects innovative services.

kmittapalli
Next slide.

kmittapalli
OK, so back to where we are in terms of fidelity of implementation, I'll talk briefly about what exactly fidelity of implementation means particularly the context factors that can have a heavy influence on how you run your program.

kmittapalli
Remember when I said context really matters.

kmittapalli
So looking at your logic model, what aspects of context could possibly influence the implementation of your project, which will in turn affect

kmittapalli
the outcomes?

kmittapalli
Next slide.

kmittapalli
So, back to our example, looking again at this

definition of claim and also promising evidence, so 95% of HEP and CAMP students who participate in at least 10 hours of grant supported academic training will show improvement on HSE practice test or will complete all first semester courses in CAMP with C grade or better.
Let's say we achieve our expectations.

We then have to ask how do we know that our expected outcome was achieved because the students actually participated in at least 10 hours of grant supported services?

Maybe other students did just as well without participating in at least 10 hours of grant supported academic tutoring.

Answering that question will require us to look at evidence,

So there are several study designs that evaluators and researchers use. For the purposes of this presentation, I will mainly focus on the quasi-experimental designs, or in short, QED.

A QED attempts to approximate an experimental study by identifying a comparison group that is like the treatment group in important respects.

So, what we call as a matched comparison group in a QED is an important factor and there are a few ways of doing it.
We could either do propensity score matching, originating matching method, which I'm going to talk about in the latter slides. However, the name of the method is not as important as much as you understand the basics of creating a comparison group.

To create similar groups, one often matches participants on similar characteristics so that the participants in both the control and the treatment conditions have very similar characteristics.

The better the matching, the better the design, and therefore, better the results.

So once again, let's look at our example claim.

We choose factors or characteristics on which to match the participants so that the 2 conditions are as similar as possible.

We might decide that both conditions should have participants who are HEP and CAMP participants, they're taking HSE practice test for HEP, or they are enrolled in the first semester of their undergraduate education for CAMP, they are first generation students seeking tertiary education, they are the similar age group and age range, they are full time students, and there is a gender balance in the 2 groups.

So, the first 2 are pretty obvious because we are in the HEP and CAMP grant.

Both conditions need to have participants who are also eligible for the program. After that, we must also consider what other characteristics might distinguish the students.

So, the ones I have listed are few of the possibilities. I mentioned about you know age, the demographic
characteristics. The strength of this design is critically dependent on how well the matching is accomplished. You need to know your participants extremely well to make sure that your pattern matching is effective.

00:44:53.480 --> 00:45:10.510
kmittapalli
The difference, of course, is that the treatment condition will involve the intervention of the academic tutoring while the comparison control condition does not, which also means that some students will not receive the intervention that could possibly help them.

00:45:16.330 --> 00:45:17.050
kmittapalli
Next slide.

00:45:19.390 --> 00:45:35.240
kmittapalli
So, thanks to Dr. Garcia here, CAMP director come from the Bueno Center at the University of Colorado, Boulder for sharing an example from his CAMP grant. I had a very nice discussion with him the last few weeks and he talked to me about

00:45:35.580 --> 00:45:38.110
kmittapalli
the conditions,

00:45:38.180 --> 00:45:42.650
kmittapalli
the structure of his analysis, and how it worked out for him.

00:45:43.330 --> 00:45:57.350
kmittapalli
So, in a sense the sample sizes were about 30 students each year and over the years longitudinally that added up to 150 or so, so he ended up with a really good sample to conduct the longitudinal analysis

00:45:58.050 --> 00:46:00.220
kmittapalli
and track the individual student progress.

00:46:01.960 --> 00:46:14.000
kmittapalli
So the data collection: he also had a good collaboration with his IR department folks at the university who were providing him data on the GPRA measures.

00:46:15.040 --> 00:46:21.470
kmittapalli
And also, he had access to the rosters of CAMP and non-CAMP students, so that was the data collection process.
And in terms of the statistic, he conducted an independent T test because the 2 groups were independent which determined the significance of the effect of 2 groups’ means independently.

And effect size will basically which determines the magnitude of the effects. I’m going to talk about this in little details. So just hold that thought in terms of Dr Garcia’s project here.

Next slide.

So, going back to designing and developing a quasi-experimental study and specifically your control group, so in case of Dr. Garcia’s project, all the students are enrolled in developmental courses. They are first generation college students, first year students, commuter students. They were receiving Pell Grants, or they were Pell Grant eligible, and they were full time students. Remember when I talked about having a very close matched comparison group, so he had these 2 groups with all these characteristics.

So, one way to really work collaboratively to gather information on your 2 groups is to work with institutional research and assessment folks.

The other way is also by doing a statistical analysis and producing a matched comparison group by using propensity score matching and a more sophisticated method called the genetic method.

So, those people who are familiar with statistical techniques, such as SPSS or STATA, they can construct an artificial control group by using the PSM method or even a genetic mapping method.

So, under the time constraints, I don’t think I can go into a lot of details as to how it works.

But keeping in mind that either you work with your IR people to develop a matched comparison group,
or you can do statistically by some historical data and running the information and creating an artificial matched group.

00:48:35.660 --> 00:48:36.340
kmittapalli
Next slide.

00:48:39.900 --> 00:48:53.000
kmittapalli
So, I mentioned the term effect size. In statistics, effect sizes are a value that measures the strength of the relationship between 2 variables in a population or even a sample-based estimate of that quantity.

00:48:53.650 --> 00:49:23.650
kmittapalli
It can refer to the value of a statistic calculated from the sample data, the value of the parameter of the population, or to the equation that operationalizes how that parameter leads to an effect size, so, based on what Dr. Garcia studied the sample size that he had was 112 with 31 CAMP students and 81 in the comparison control. The CAMP Completers were about 87% and the controller,

00:49:23.710 --> 00:49:37.060
kmittapalli
the control complete was 57%, so he actually got a pretty high level of significance at 0.001 level and the effect size actually was pretty good 0.7, which is considered a medium effect size.

00:49:37.960 --> 00:49:44.730
kmittapalli
So, there's actually a lot of information and a lot of technical information of how to calculate effect size.

00:49:45.540 --> 00:49:51.590
kmittapalli
A technicality behind it is in the What Works Clearinghouse guidance sheet so please take a moment to check it out.

00:49:54.340 --> 00:49:55.150
kmittapalli
Next slide.

00:49:58.240 --> 00:50:28.060
kmittapalli
So, let's look at what Dr. Garcia did with his grant. I mentioned that longitudinally by year 3, had a fairly large sample size, so referring to the earlier slide where CAMP students were 31 in number, that grew to 97 by year 3, and when he redid the independent analysis, independent T test again in year 3, their effect size actually grew larger from 0.07 to 2.81, which is considered very large effect size and it is positive.

00:50:35.810 --> 00:50:36.540
kmittapalli
Next slide.
So, perhaps you may also find that your program is probably not suitable for a quasi-experimental design where you're not able to have enough sample or enough participants to actually draw a comparison or matched comparison group.

So, in that case, the alternative is a correlational design study.

But when it's not even possible, the best choice is really about doing this study again, keeping in mind some of the biases, some of these statistical controls, and making sure that it is still reliably done and it is using a valid instrument.

So, a correlational study really investigates the relationship. But it is not causal in nature, it only mainly shows a relationship between variables.

It will not yield in causal inferences. Evidence produced by a correlational design also does not meet the What Works Clearinghouse moderate evidence standard so please keep that in mind.

But graphically or visually this is what a correlational study will look like.

For instance, the first one is a positive correlation when the value of one variable increases with respect to the other.

The negative correlation is the second image when the value of one variable decreases
00:52:08.440 --> 00:52:09.700 kmittapalli
with respect to another.
00:52:10.690 --> 00:52:17.500 kmittapalli
And no correlation the 3rd graph. Then there is no linear dependence or relationship between 2 variables.
00:52:19.710 --> 00:52:30.540 kmittapalli
In research and evaluation parlance, correlational designs are considered the weakest of the research designs because they don't tell us anything about causality.
00:52:31.460 --> 00:52:39.350 kmittapalli
They usually indicate whether one variable or group of variables may not be related to another variable.
00:52:39.990 --> 00:52:41.210 kmittapalli
Hence the phrase,
00:52:41.960 --> 00:52:45.560 kmittapalli
Correlation does not imply causation.
00:52:48.440 --> 00:52:53.980 kmittapalli
So, one last time let's return to our example of claim about a project's outcomes.
00:52:55.550 --> 00:52:56.280 kmittapalli
Next slide.
00:52:59.040 --> 00:53:07.960 kmittapalli
In this design, there are no treatment or control conditions. That's important because it's a correlational design. Everybody gets the treatment, but not everybody gets the same dose.
00:53:08.730 --> 00:53:20.490 kmittapalli
So, in our example, we want everyone to have at least 10 hours of academic tutoring, but some will have a lot more than 10 and some will have maybe only 10 or just under 10.
00:53:21.240 --> 00:53:32.550 kmittapalli
So, our hypothesis is that the more tutoring hours participants get the better they will do in their HSE practice exams for HEP or first semester courses in CAMP.
We also contend that participation in tutoring hours will have a positive correlation with the students’ performance on the HSE practice tests or in the first semester courses; remember, I'm talking about correlation.

The advantages are that the basic design is less complex in a correlational design, larger numbers are not necessary, and everyone willing to participate in the treatment will have access to it, so that's the main advantage of doing a correlational study.

We will not, however, be able to infer any causality.

So, one of the complications is that of selection bias, more specifically self-selection bias.

So, what happens is the potential for self-selection is present in a correlational study. Therefore, it is important that how do we use matching techniques to help promote the selection bias? That's why it is important to have a well-designed correlation study by statistical controls for controlling the selection bias.

So, in other words, you need to statistically control for extraneous potential factors that could have an effect on the treatment outcome, both in the short and the long terms.

So, now to sum up,
kmittapalli
I think we need to click Jessica for the text.

kmittapalli
Yeah, you can keep clicking.

kmittapalli
Yep, so user projects logic model and research process took carefully to identify study questions going back to that figure that I mentioned earlier on, the intervention that needs to be evaluated, and the relevant outcomes that you expect to be affected by that specific intervention.

kmittapalli
Keep in mind the sampling issues and when possible, scope for a longitudinal study referring back to Dr. Garcia's example.

kmittapalli
So, projects are expected using an appropriate quasi-experimental design to produce evidence bearing a theoretical linkage between at least one aspect of the project and at least one relevant outcome.

kmittapalli
Also,

decide how to form a comparison group to contrast with students receiving the intervention.

kmittapalli
Always make sure that you have permission and the right resources to collect the baseline implementation and outcome data for your evaluation.

kmittapalli
That's all folks over to Sandy.

Toro, Sandra
Thank you so much.
Toro, Sandra
That was a great presentation

Toro, Sandra
Our next slide contains links to resources, including EDGAR definitions, some non-regulatory guidance about using evidence to strengthen education investments, EDGAR in evidence, and understanding ED evidence definitions.

Toro, Sandra
Next slide please.

Toro, Sandra
For more detailed information and technical assistance about designing experimental and quasi experimental studies. Please visit these websites and there are additional resources and examples of logic models and what to look for in the PowerPoint that we will be sharing with you that you can refer to after today.

Toro, Sandra
And I believe you did receive a PDF if you're on the HEP CAMP Listserv.

Toro, Sandra
Thank you Millie for sending that out.

Toro, Sandra
Next slide please.

Toro, Sandra
So any questions before we move into our breakout groups? You can ask your question in the chat box and again, if we can't get to your question right now, we will definitely follow up with you after the webinar.

Toro, Sandra
But we can also use the breakout rooms to clarify all of the information that we shared today.

Toro, Sandra
I think we have a very quiet group today. But if anyone has any questions. Feel free to put them into the chat.
And while you're doing that Jessica if you can go to the next slide.

Here our current HEP and CAMP contacts and you should feel free to reach out to us at any time if you have any questions about your work on an application that you're thinking about submitting, we're happy to help.

Yeah, so someone, said it's not a question, but I think it's lunchtime for people.

Alright next slide, please. I don't see anyone typing so we can transition to the breakout rooms for further discussion. And remember that evaluation questions will be shared via the chat box in the breakout rooms, and we would greatly appreciate if you can answer these questions for us.

So next slide, please.

So, if you'd like to join us for an optional breakout for a facilitated discussion with your peers as well,

we will be separating into 2 groups, and we would like you to think about these questions, so which components of developing an evaluation and building promising evidence have been most challenging for you and specifically if you address the challenges, what solutions did you use or if you haven’t addressed those challenges, how can your peers help you with identifying

So, the breakout room facilitators, Kavita and myself and we will also have some additional ED staff. We will put the discussion questions in the chat box, and you can respond orally by unmuting yourself or putting responses in the chat box and each breakout session will have staff people to assist with any technology issues that might come up.
And following, we expect about 20 minutes for the breakouts, we ask that you complete the evaluation questions.

01:01:03.470 --&gt; 01:01:06.390
Toro, Sandra
I think the

01:01:08.180 --&gt; 01:01:09.760
Toro, Sandra
links have been posted.

01:01:11.070 --&gt; 01:01:17.750
Toro, Sandra
So, please join us if you can come for the breakout sessions, the 2 links are in the chat.

01:01:21.370 --&gt; 01:01:22.410
Toro, Sandra
And

01:01:24.910 --&gt; 01:01:28.650
Toro, Sandra
Jessica can you please scroll?

01:01:29.380 --&gt; 01:01:32.940
Toro, Sandra
Or move to the next slide.

01:01:34.280 --&gt; 01:01:52.370
Toro, Sandra
Yes, so I just wanted to point to the other resources that you'll see in the PowerPoint that you'll receive as a PDF if you haven't received it already so there's a logic model for HEP and CAMP, there's an example and, on the next slide,

01:01:56.650 --&gt; 01:02:00.610
Toro, Sandra
this one is about models for evaluation planning,

01:02:01.240 --&gt; 01:02:03.750
Toro, Sandra
And we have one more resource slide,

01:02:05.720 --&gt; 01:02:09.060
Toro, Sandra
this one is just some questions for you to think about

01:02:09.110 --&gt; 01:02:18.020
Toro, Sandra
in terms of developing your logic model and looking back and reflecting on your claims and logic models that you've already created.
And with that,

we hope you will join us for the breakouts and thank you so much to Dr. Kavita for all of your wonderful information that you’ve shared with us today.